# Assignment Number: 3.3

# Problem Statement:

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| --- | --- | --- |
| The electricity accounts of residents in a very small town are calculated as follows:  If 500 units or lesser is used then 2 cent per dollar.  If more than 500 but not more than 1000 units are used, the cost is $10 for the first 500 units and 5 cents for every unit in excess of 500.  If more than 1000 units are used, the cost is $35 for the first 1000 units plus 10 cents for every unit in excess of 1000.  A basic service fee of $5 is charged, no matter how much electricity is used.  Write a program that enters the following five consumptions into a vector and display the total charge for each one: 200, 500, 700, 1000, and 1500. | |  | | --- | |  | |

# Inputs :

Variable is a which denotes the vector of five electricity consumptions of resident in a town.

# Outputs:

Variable is b which denotes the vector of total charge of consumption.

# Pseudocode:

* Define a as electricity consumption in a town and b as total charge of consumption.
* Assign the value to a in vector form.
* If 500 units or lesser is used then 2 cent per dollar.
* If more than 500 but not more than 1000 units are used, the cost is $10 for the first 500 units and 5 cents for every unit in excess of 500.
* If more than 1000 units are used, the cost is $35 for the first 1000 units plus 10 cents for every unit in excess of 1000.
* A basic service fee of $5 is charged, no matter how much electricity is used.
* stop

# Program :electricity.m

% Script File: electricity

% Purpose: Determine the total charge according to the entered units.

% Record of Revision:

% Akash jaiswal 15/09/2015 Original

% Variable declaration

% Input Variables

% x-the amount of units read

% Output Variable

% total-The amount of charge to be paid.

clc;clear all;close all;

x=input('Enter the value of unit');

if(x<=500)

cost=x\*0.02;

elseif(x>500 && x<=1000)

cost=10+0.05\*(x-500);

else

cost=35+0.1\*(x-1000);

end

total=cost+5;

fprintf('The total value in Rs.%6.2f\n',total)

# Test Results :

>>electricity

Enter the value of unit 1500

The total value in Rs.90

>>electricity

Enter the value of unit 1000

The total value in Rs.40

>>electricity

Enter the value of unit 500

The total value in Rs.15